Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A reluctance type resolver comprising:

a stator, constructed from a magnetic material, having a plurality of excitation teeth, each of which is wound by an excitation winding;

a rotor having magnetic salient sections that are placed to oppose said excitation teeth; and

a detector for detecting the position of said rotor, by detecting a current or voltage of said excitation winding which changes with different phase in response to motion of said rotor; wherein

said excitation winding is wound on each of the plurality of excitation teeth so that the magnetic fluxes through all excitation teeth have the same direction; and

said stator includes bypass magnetic path teeth passing a magnetic flux having a direction opposite to the direction of said excitation teeth, wherein the bypass magnetic path teeth are not wound by said excitation winding.

2. (Currently Amended) A reluctance type resolver, comprising:

a stator, constructed from a magnetic material, having a plurality of excitation teeth, each of which is wound by an excitation winding;

a rotor having magnetic salient sections that are placed to oppose said excitation teeth; and

a detector for detecting the position of said rotor, by detecting a current or voltage of said excitation winding which changes with different phase in response to the motion of said rotor; wherein

each of said excitation windings is wound on each of the excitation teeth for a pair of adjacent excitation teeth such that the magnetic flux through each of the paired

excitation teeth has directions opposite to each other, and said excitation windings for each pair of adjacent excitation teeth are connected in series;

an identical excitation signal is supplied to one end of each of said excitation windings for each pair connected in series;

the excitation teeth are provided on said stator so that the pitch of each excitation tooth for each pair of adjacent excitation teeth equals an ~~integral~~integer multiple of the pitch of the magnetic salient sections of the rotor; and

both excitation teeth in each pair of excitation teeth have the same phase for magnetic resistance change with respect to the motion of the rotor.